505509757 06/05/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5556561

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
STEVEN C. ZIMMEL	01/29/2019
MICHAEL JAMES OTT	01/28/2019
DANNY WILLY AUGUST VERHEYDEN	01/28/2019
MICHAEL AARON KADAR-KALLEN	01/28/2019
GARY WILLIAM ADAMS	02/04/2019
ROBERT CHARLES FLAIG	01/28/2019
GREGORY J. SCHAIBLE	01/28/2019

RECEIVING PARTY DATA

Name:	COMMSCOPE TECHNOLOGIES LLC
Street Address:	1100 COMMSCOPE PLACE SE
City:	HICKORY
State/Country:	NORTH CAROLINA
Postal Code:	28602

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16466766

CORRESPONDENCE DATA

Fax Number: (612)332-9081

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 612-332-5300

Email: mcaufman@merchantgould.com

Correspondent Name: DAVID G. SCHMALTZ

Address Line 1: P.O. BOX 2903
Address Line 2: M&G COMMSCOPE

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER: 02316.7150USWO

NAME OF SUBMITTER: DAVID G. SCHMALTZ

SIGNATURE: /David G. Schmaltz/

DATE SIGNED: 06/05/2019

505509757 REEL: 049378 FRAME: 0476

Total Attachments: 18 source=2019-06-05--Executed-Assignment_02316-7150USWO#page1.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page2.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page3.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page4.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page5.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page6.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page7.tif source=2019-06-05--Executed-Assignment_02316-7150USWO#page8.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page9.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page10.tif source=2019-06-05--Executed-Assignment_02316-7150USWO#page11.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page12.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page13.tif source=2019-06-05--Executed-Assignment_02316-7150USWO#page14.tif source=2019-06-05--Executed-Assignment_02316-7150USWO#page15.tif source=2019-06-05--Executed-Assignment_02316-7150USWO#page16.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page17.tif source=2019-06-05--Executed-Assignment 02316-7150USWO#page18.tif

WHEREAS, we, Steven C. ZIMMEL, Michael James OTT, Danny Willy August VERHEYDEN, Michael Aaron KADAR-KALLEN, Gary William ADAMS, Robert Charles FLAIG, and Gregory J. SCHAIBLE, made certain new and useful inventions and improvements for which we filed the following patent applications: International Patent Application Serial No. PCT/US2017/064671, filed December 5, 2017; which claims benefit from U.S. Patent Application Serial No. 62/430,343, filed December 5, 2016; and which claims benefit from U.S. Patent Application No. 62/565,323, filed September 29, 2017; all of which are entitled MULTI-FIBER FERRULE-LESS DUPLEX FIBER OPTIC CONNECTORS WITH MULTI-FIBER ALIGNMENT DEVICES.

AND WHEREAS, CommScope Technologies LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 1100 CommScope Place SE, Hickory, NC 28602 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid applications, and the right(s) to claim priority thereto, and in and to the applications, all patent applications based upon said applications, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patents of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patents for the aforesaid inventions and improvements to the Assignee

1

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patents, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

IN TESTIMONY WHEREOF, I	have hereunto set my hand this	21 day of
January , 20 19.	Sten	'. Jmy
	Steven C. ZIMMEL Inventor	/
IN TESTIMONY WHEREOF, I I	nave hereunto set my hand this	day of
, 20		
	Michael James OTT	***************************************
	Inventor	

IN TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Danny Willy August VERHEYDEN Inventor
N TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Michael Aaron KADAR-KALLEN
	Inventor
N TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Gary William ADAMS Inventor
N TESTIMONY WHEREOF	F, I have hereunto set my hand this day of
	, <u> </u>
	Robert Charles FLAIG Inventor
N TESTIMONY WHEREOF	F, I have hereunto set my hand this day of
, 20	
	Gregory J. SCHAIBLE
	Inventor

WHEREAS, we, Steven C. ZIMMEL, Michael James OTT, Danny Willy August VERHEYDEN, Michael Aaron KADAR-KALLEN, Gary William ADAMS, Robert Charles FLAIG, and Gregory J. SCHAIBLE, made certain new and useful inventions and improvements for which we filed the following patent applications: International Patent Application Serial No. PCT/US2017/064671, filed December 5, 2017; which claims benefit from U.S. Patent Application Serial No. 62/430,343, filed December 5, 2016; and which claims benefit from U.S. Patent Application No. 62/565,323, filed September 29, 2017; all of which are entitled MULTI-FIBER FERRULE-LESS DUPLEX FIBER OPTIC CONNECTORS WITH MULTI-FIBER ALIGNMENT DEVICES.

AND WHEREAS, CommScope Technologies LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 1100 CommScope Place SE, Hickory, NC 28602 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid applications, and the right(s) to claim priority thereto, and in and to the applications, all patent applications based upon said applications, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patents of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patents for the aforesaid inventions and improvements to the Assignee

1

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patents, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

IN TESTIMONY WHER	EOF, I have hereunto set my hand this day of
, 20	
	Steven C. ZIMMEL
	Inventor
IN TESTIMONY WHER	EOF, I have hereunto set my hand this 28^{+4} day of
January , 2019.	
	Mohalland H
	Michael James OTT
	Inventor

IN TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Danny Willy August VERHEYDEN Inventor
N TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Michael Aaron KADAR-KALLEN
	Inventor
N TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Gary William ADAMS Inventor
N TESTIMONY WHEREOF	F, I have hereunto set my hand this day of
	, <u> </u>
	Robert Charles FLAIG Inventor
N TESTIMONY WHEREOF	F, I have hereunto set my hand this day of
, 20	
	Gregory J. SCHAIBLE
	Inventor

WHEREAS, we, Steven C. ZIMMEL, Michael James OTT, Danny Willy August VERHEYDEN, Michael Aaron KADAR-KALLEN, Gary William ADAMS, Robert Charles FLAIG, and Gregory J. SCHAIBLE, made certain new and useful inventions and improvements for which we filed the following patent applications: International Patent Application Serial No. PCT/US2017/064671, filed December 5, 2017; which claims benefit from U.S. Patent Application Serial No. 62/430,343, filed December 5, 2016; and which claims benefit from U.S. Patent Application No. 62/565,323, filed September 29, 2017; all of which are entitled MULTI-FIBER FERRULE-LESS DUPLEX FIBER OPTIC CONNECTORS WITH MULTI-FIBER ALIGNMENT DEVICES.

AND WHEREAS, CommScope Technologies LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 1100 CommScope Place SE, Hickory, NC 28602 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid applications, and the right(s) to claim priority thereto, and in and to the applications, all patent applications based upon said applications, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patents of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patents for the aforesaid inventions and improvements to the Assignee

1

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patents, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

IN TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Steven C. ZIMMEL
	Inventor
IN TESTIMONY WHEREOF	f, I have hereunto set my hand this day of
, 20	
	Michael James OTT

Attorney Docket No. 02316,7150WOUI

The receipt his		I have hereunto set my hand this day of
Santa San 3 3		~ 2
		<u> </u>
		Danny Willy August VERHEYDEN
		Inventor
IN TESTIM	ONY WHEREOF,	I have hereunto set my hand this day of
	, 20	
		Michael Aaron KADAR-KALLEN
		Inventor
IN TESTIMO	ONY WHEREOE	I have hereunto set my hand this day of
		There residence set my hand this (88) (1)
	, 20,	
		Gary William ADAMS
		Inventor
IN TESTIMO	ONY WHEREOF,	I have hereunto set my hand this day of
	, 20 .	
	3 Acr V	
		Robert Charles FLAIG
		Inventor
ያሊያ ስምያንሪሻምንን ቀረ	\$\$.157 \$171 transcription	
IIV TESTIME		I have hereunto set my hand this day of
	, 20	
		Gregory J. SCHAIBLE
		Inventor

WHEREAS, we, Steven C. ZIMMEL, Michael James OTT, Danny Willy August VERHEYDEN, Michael Aaron KADAR-KALLEN, Gary William ADAMS, Robert Charles FLAIG, and Gregory J. SCHAIBLE, made certain new and useful inventions and improvements for which we filed the following patent applications: International Patent Application Serial No. PCT/US2017/064671, filed December 5, 2017; which claims benefit from U.S. Patent Application Serial No. 62/430.343, filed December 5, 2016; and which claims benefit from U.S. Patent Application No. 62/565.323, filed September 29, 2017; all of which are entitled MULTI-FIBER FERRULE-LESS DUPLEX FIBER OPTIC CONNECTORS WITH MULTI-FIBER ALIGNMENT DEVICES.

AND WHEREAS, CommScope Technologies LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 1100 CommScope Place SE, Hickory, NC 28602 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid applications, and the right(s) to claim priority thereto, and in and to the applications, all patent applications based upon said applications, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patents of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patents for the aforesaid inventions and improvements to the Assignee

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patents, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I	have hereunto set my hand this	day of
, 20,		
	Steven C. ZIMMEL	
	Inventor	
IN TESTIMONY WHEREOF, I	have hereunto set my hand this	day of
, 20 <u></u> ,		
	Michael James OTT	
	Inventor	

2

Attorney Docket No. 02316.7150WOU1	
IN TESTIMONY WHEREOF, I h	nave hereunto set my hand this day of
	Danny Willy August VERHEYDEN Inventor
IN TESTIMONY WHEREOF, I h	nave hereunto set my hand this <u>2</u> day of
	Michael Aaron KADAR-KALLEN Inventor
IN TESTIMONY WHEREOF, 1 h	have hereunto set my hand this day of
	Gary William ADAMS Inventor
IN TESTIMONY WHEREOF, I h	nave hereunto set my hand this 29 day of Robert Charles FLAIG
IN TESTIMONY WHEREOF, I h	Inventor nave hereunto set my hand this day of
	Gregory J. SCHAIBLE Inventor

WHEREAS, we, Steven C. ZIMMEL, Michael James OTT, Danny Willy August VERHEYDEN, Michael Aaron KADAR-KALLEN, Gary William ADAMS, Robert Charles FLAIG, and Gregory J. SCHAIBLE, made certain new and useful inventions and improvements for which we filed the following patent applications: International Patent Application Serial No. PCT/US2017/064671, filed December 5, 2017; which claims benefit from U.S. Patent Application Serial No. 62/430,343, filed December 5, 2016; and which claims benefit from U.S. Patent Application No. 62/565,323, filed September 29, 2017; all of which are entitled MULTI-FIBER FERRULE-LESS DUPLEX FIBER OPTIC CONNECTORS WITH MULTI-FIBER ALIGNMENT DEVICES.

AND WHEREAS, CommScope Technologies LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 1100 CommScope Place SE, Hickory, NC 28602 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid applications, and the right(s) to claim priority thereto, and in and to the applications, all patent applications based upon said applications, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patents of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patents for the aforesaid inventions and improvements to the Assignee

1

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patents, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

IN TESTIMONY WHEREOF,	, I have hereunto set my hand this day of
, 20	
	Steven C. ZIMMEL
	Inventor
IN TESTIMONY WHEREOF	, I have hereunto set my hand this day of
, 20	
	Michael James OTT

70.1 mm	
	have hereunto set my hand this day of
	Danny Willy August VERHEYDEN Inventor
IN TESTIMONY WHEREOF, I	have hereunto set my hand this day of
, 20	uay of
	Michael Aaron KADAR-KALLEN Inventor
IN TESTIMONY WHEREOF, I	have hereunto set my hand this 4th day of
February, 2019.	day ()
	<u>Day William Golons</u> Gary William ADAMS Inventor
IN TESTIMONY WHEREOF 11	have hereunto set my hand this day of
	day of
	Robert Charles FLAIG Inventor
IN TESTIMONY WHEREOF, II	nave hereunto set my hand this day of
, 20,	Gay Or
, , , , , , , , , , , , , , , , , , , ,	
>	Gregory J. SCHAIBLE Inventor

Attorney Docket No. 02316.7150WOU1

AND WHEREAS, CommScope Technologies LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 1100 CommScope Place SE, Hickory, NC 28602 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid applications, and the right(s) to claim priority thereto, and in and to the applications, all patent applications based upon said applications, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patents of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patents for the aforesaid inventions and improvements to the Assignee

1

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patents, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE PERMITTEE	HEREOF, I have hereunto set my hand this day of
	*
	Steven C. ZIMMEL
	Inventor
IN TESTIMONY WI	HEREOF, I have hereunto set my hand this day of
, 20	•
, 20_	• • • • • • • • • • • • • • • • • • •
, 20	·
, 20_	Michael James OTT

Attorney Docket No. 02316.7150WOU1	
IN TESTIMONY WHEREOF, I ha	ave hereunto set my hand this day of
	Danny Willy August VERHEYDEN Inventor
IN TESTIMONY WHEREOF, I ha	ave hereunto set my hand this day of
	Michael Aaron KADAR-KALLEN Inventor
IN TESTIMONY WHEREOF, I h	ave hereunto set my hand this day of
, 20	
	Gary William ADAMS Inventor
ni wegtimaniy weedear 14	ave hereunto set my hand this day of
	avo notomic socialis and control and contr
	Robert Charles FLAIG Inventor
IN TESTIMONY WHEREOF, I b JANUARY, 2019.	have hereunto set my hand this 28 day of
	Dregory J. Schaible
	Gregory J. SCHAIBLE Inventor

3